Release notes for ENDF/B Development e-050_Sn_000 evaluation

October 13, 2016

- `fudge-4.0` Warnings:

  1. Mislabled emitted particle
     Reading ENDF file: ../e-050_Sn_000.endf (Error # 0): ZAP messed up

     `WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0`

  2. FIXME: Generic fudge unimplemented message
     reaction label 1: e- + Sn + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)

     `WARNING: Checking not yet implemented for energyLoss type data`

  3. FIXME: Generic fudge unimplemented message
     reaction label 2: e- + Sn [excitation] / Product: e- (Error # 0): Generic unimp (c)

     `WARNING: Checking not yet implemented for energyLoss type data`

- `fudge-4.0` Errors:

  1. Calculated and tabulated thresholds don't agree
     reaction label 0: e- + Sn [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch

     `WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!`

  2. Calculated and tabulated thresholds don't agree
     reaction label 1: e- + Sn + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch

     `WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!`

  3. Calculated and tabulated thresholds don't agree
     reaction label 2: e- + Sn [excitation] / Cross section: (Error # 0): Threshold mismatch

     `WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!`

  4. Calculated and tabulated thresholds don't agree
     reaction label 3: e- + e- + Sn1s1/2 / Cross section: (Error # 0): Threshold mismatch

     `WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 29184. eV!`

  5. Calculated and tabulated thresholds don't agree
     reaction label 4: e- + e- + Sn2s1/2 / Cross section: (Error # 0): Threshold mismatch

     `WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4440.3 eV!`

  6. Calculated and tabulated thresholds don't agree
     reaction label 5: e- + e- + Sn2p1/2 / Cross section: (Error # 0): Threshold mismatch

     `WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 4160.8 eV!`

  7. Calculated and tabulated thresholds don't agree
     reaction label 6: e- + e- + Sn2p3/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 3926.8 eV!
```

8. Calculated and tabulated thresholds don't agree
   reaction label 7: e- + e- + Sn3s1/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 869.05 eV!
```

9. Calculated and tabulated thresholds don't agree
   reaction label 8: e- + e- + Sn3p1/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 753.36 eV!
```

10. Calculated and tabulated thresholds don't agree
    reaction label 9: e- + e- + Sn3p3/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 710.3200000000001 eV!
```

11. Calculated and tabulated thresholds don't agree
    reaction label 10: e- + e- + Sn3d3/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 503.57 eV!
```

12. Calculated and tabulated thresholds don't agree
    reaction label 11: e- + e- + Sn3d5/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 494.62 eV!
```

13. Calculated and tabulated thresholds don't agree
    reaction label 12: e- + e- + Sn4s1/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 142.81 eV!
```

14. Calculated and tabulated thresholds don't agree
    reaction label 13: e- + e- + Sn4p1/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 103.64 eV!
```

15. Calculated and tabulated thresholds don't agree
    reaction label 14: e- + e- + Sn4p3/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 95.8 eV!
```

16. Calculated and tabulated thresholds don't agree
    reaction label 15: e- + e- + Sn4d3/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 33.49 eV!
```

17. Calculated and tabulated thresholds don't agree
    reaction label 16: e- + e- + Sn4d5/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 32.39 eV!
```

18. Calculated and tabulated thresholds don't agree
    reaction label 17: e- + e- + Sn5s1/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 13.39 eV!
```

19. Calculated and tabulated thresholds don't agree
    reaction label 18: e- + e- + Sn5p1/2 / Cross section: (Error # 0): Threshold mismatch

    ```
    WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 6.28 eV!
    ```

20. Calculated and tabulated thresholds don't agree
    reaction label 19: e- + e- + Sn5p3/2 / Cross section: (Error # 0): Threshold mismatch

    ```
    WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5.77 eV!
    ```

- `xsectplotter` Warnings:

    1. Mislabled emitted particle
       Error: ZAP messed up

       ```
       stderr while processing crossSection

              WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0
       ... [2 more lines]
       ```